



The FARE software

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Abstract. This article highlights the importance of immediate corrective feedback in tutorial software for language teaching in an academic learning environment. We aim to demonstrate that, rather than simply reporting on the performance of the foreign language learner, this feedback can act as a mediator of students' cognitive and metacognitive activity. At the theoretical level, we describe the Computer-Assisted Language Learning (CALL) environment in which this technology should be used, as well as the concept of the cognitive correction mode. This, in particular, deals with students' errors by predicting their possible responses, which can be recorded in the computer system, and by creating messages that are specific to the error and the issue. Such a correction mode aims at assisting students in resolving the proposed activities. On a practical level, this concept was translated into the FARE software, which is distinguished by its recording of messages for hits or for focusing on student errors (Focus Message), for analyzing the issue (Analyze Message), addressing the issue by means of an example (Resolve Message), and for explaining the correct answer in didactic discourse (Execute Message). We will illustrate the FARE software with the first unit of an Italian course for foreign students.

Keywords: online foreign language teaching, automatic corrective feedback, cognitive methodology.

1. Introduction

The tutorial programs of linguistic education have been becoming more and more intuitive and attractive to learners in several technical and educational respects, such as the interactive interface, multimedia content, hypertextual structure, vocal recognition program integration, online dictionary link, etc. However, the asynchronous modality of learning still lacks methodological resources that help

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learners to undertake the proposed linguistic competence activities successfully and, consequently, to learn the content they convey.

In this article, we propose a new learning methodology to be configured in foreign language teaching-learning tutorials that works the progression of the content presented by means of feedback provided while working on questions. In other words, our proposal is to enhance the educational efficacy of feedback from activities for promoting learning in the foreign language.

We believe it is possible to combine the value of the teacher–student interaction with the automatic feedback based on the prediction of students' answers for each question, so as to match the corrections to the individual errors. Our effort will be to act on the students' metacognition, leading them to reflect on their performance, to analyze the questions and try to solve them based on the cognitive elements of the formal learning of the language itself.

While working on a question, as well as locating any error contained in his or her answer, the student will also have access to analysis messages for the question, tips for resolution on the basis of recasts and examples, and, if still having difficulty in arriving at the solution of the question, the correct answer followed by an explanation. Such extrinsic feedback, which makes the correction steps explicit, gains relevance in setting up a tutorial program for teaching in a foreign language.

"If extrinsic feedback is used it should always be clear what kind of mistake has been made, and the feedback should provide not only awareness as to where the mistake lies, but also how to improve the learner's performance. Wherever possible, one should avoid abrupt statements such as 'No', 'Incorrect, try again', but instead provide constructive criticism and try to anticipate and predict our learners' behaviour when completing an activity. This may be achieved by carrying out – prior to the design stage – an error analysis based, for instance, on L1 interference" (Gimeno-Sanz & Davies, 2012, section 3.12).

2. Method

The FARE software is designed to teach a foreign language to students with an academic learning style, therefore, school-educated young people or adults who have a basic grasp of the target language in question, when this does not belong to the same family as their native tongue.

The units are introduced progressively from level A1 to level C2. Each level includes approximately 30 units. Each unit is comprised of an initial input, presented in the forms of audio and transcripts, and at least one activity related to linguistic competence. The activities are primarily of the "gap completion" type, with a sequence of FARE messages available for each gap, as can be seen in the Figure 1 below.

Figure 1. FARE software activity model



When an answer is entered in the gap, the computer system compares it with answers stored in the program database and provides the relevant message for "Focus" (F). Upon clicking that button, the student will know whether or not his or her answer is correct and, in the case of an error, will learn what the error was. If the answer has not been foreseen, the program informs the user that it was impossible to check the answer, and it invites the student to make sure they did not make any typing errors or click other buttons to obtain more information about the question to be solved.

The other buttons are always active and can be triggered at any moment while working on the activity (even before the insertion of the answer), and in the order that the student wishes to use them. The content available in "Analyze" (A) refers to the concept, to the characteristics or peculiarities of the object of the study. The content available in "Resolve" (R) is a hint on how to solve the question, with an example or an elicitation recast, such as a synonym, or the initial letters of the answer. Finally, the content available in "Execute" (E) gives the required answer followed by its justification.

3. Discussion

By means of the (meta)cognitive methodology of the FARE software, learners have the opportunity to learn the language consciously, obtaining objective answers for hypotheses that arise while working on activities and forthright information about the object of study. The anguish caused by uncertainties will give way to a feeling of encouragement to discover and face challenges that knowledge provides. Our intention is to train a critical speaker, capable of really understanding the content. The detailed feedback for each question, broken down

into a freely accessible sequence, gives students the chance to build their own linguistic knowledge, testing their hypotheses and gaining control over their learning. For Howatt (1991),

"if learning proceeds by a process of hypothesis-testing or 'trial-and-error', the response of the teacher in providing appropriate feedback is clearly crucial in promoting the development of the learner's internalized linguistic system" (p. 286).

As such, mistakes should not perplex, but should be seen as an opportunity for learning to occur. It is exactly in this sense that the proposed methodology differs from the methodology of tutorials that are well established in the market, such as Rosetta Stone and Duolingo, both of which have a methodology² that tends toward the behaviorist, merely testing knowledge of the language in an asynchronous manner.

Some tests were performed on the pilot FARE program in 2013, with students of Italian at the University of São Paulo (Pitarello, 2014). The results were very promising, as we found that, when they had doubts, they became visibly pensive at their computers, using cognitive strategies to arrive at the solutions of the questions without needing to press the "Execute" button (E).

4. Conclusion

We believe that the FARE software, besides acting on the intrinsic motivation of effective knowledge and of understanding the training, functioning and features of the foreign language, also acts by training critical students, who are not content just to receive information ready to be learned by heart, but, on the contrary are inspired to infer, reflect, and think.

The program has the same layout for all users, but the content it conveys is not "canned". Depending on each student's answer to a question, the program issues different messages – because the hypotheses proposed, when they do not correspond to the correct answer, are rarely the same – that lead to effective actions, going beyond the idea of working just with trial and error.

 [&]quot;[T]he rosetta stone/duolingo method tried to mirror how you learn your first language as a child: by showing you
pictures and telling you the words for what's in the picture, etc"; retrieved from http://www.econjobrumors.com/
topic/learning-a-language-the-rosetta-stoneduolingo-method-vs-the-traditional-one.

Thus, within the sphere of Critical CALL, our aim is to teach languages by means of well-planned and pedagogically sound feedback, imagining that this may be the resource that will facilitate "individualized and learner-centered learning" (Bäbler, 2006, p. 278).

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